REMARKS

The present context is in response to the Office Action mailed March 2, 2009, in which Claims 1-15 were rejected. Applicants have thoroughly reviewed the outstanding Office Action, including Examiner's remarks. The following remarks are believed to be fully responsive to the Office Action to render all claims patentable.

Rejection Under 35 U.S.C. §103

Claims 1-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Kuwabara* (US Patent Pub. No. 2005/0057151, hereinafter referred to as "*Kuwabara*") in view of *Sirringhaus et al* (US Patent No. 6,808,972, hereinafter referred to as "*Sirringhaus*").

Regarding Claim 1, Examiner states that *Kuwabara* discloses a structure comprising a substrate (20) (corresponding to the substrate (7) of the present invention), a first bank (21) (corresponding to the microcontact printed hydrophobic layer (11) of the present invention), an organic compound layer (24) (corresponding to the electroluminescent material (12) of the present invention), and a TFT (26) in FIG. 1B and Paragraph [0084]. Examiner states that *Kuwabara* fails to disclose a hydrophobic layer which is microcontact printed as the hydrophobic layer (11) of the present invention, but *Sirringhaus* teaches forming the hydrophobic layer as a self-assembling monolayer. Applicant respectfully traverses this assertion.

Sirringhaus discloses a method of processing solution on a substrate for overcoming problems of fabricating all-polymer TFT devices and circuits (Col. 1, lines 34-50). Referring to FIGs. 7(a)-7(c), FIG. 7(a) illustrates a method to fabricate a pre-patterned substrate, FIG. 7(b) illustrates printing and ink confinement on a pre-patterned substrate, and FIG. 7(c) illustrates a gate electrode (6) formed on a gate insulating layer (5). Prior to deposition of source-drain electrodes (2), (3), a thin polyimide layer (10) is formed over a glass substrate (1) (Col. 12, lines 23-24). This

thin polyimidc layer (10) is finely patterned to remove it in places in which the source-drain electrodes (2), (3) arc to be formed (Col. 12, lines 25-26). The thin polyimide layer (10) is selected because it is relatively hydrophobic, whereas the glass substrate (1) is relatively hydrophilic (Col. 12, lines 35-37). PEDOT material for forming the sourcc-drain electrodes (2), (3) is deposited by inkjet printing onto hydrophilic substrate areas (12) (Col. 12, lines 37-39). When ink droplets (13) spreading on the glass substrate areas hit the boundary of thc thin polyimide layer (10), the ink is repelled and prcvented from flowing into hydrophobic surface arcas (Col. 12, lines 39-43). Preferably, deposition of the ink droplets (13) is applied onto the hydrophilic substrate areas (12) (Col. 13, lines 16-17). In addition, *Sirringhaus* discloses that alternative techniques to fabricate the pre-patterned substratc can be used, such as the functionalization of the surface of the substrate with a patterned self-assembling monolayer (SAM) (Col. 14, lines 35-37). The SAM can be patterned by suitable techniques such UV light exposure through a shadow mask or microcontact printing (Col. 14, lines 40-43).

In short, the pre-patterned substrate is formed for an objective of ink confinement. One method to form the patterned substrate is shown in FIG. 7(a); that is, to form the thin polyimide layer (10) on the glass substrate (1). Another method concerns the microcontact printing method which is utilized to pattern the SAM, so as to fabricate the pre-patterned substrate. However, the microcontact printing method mentioned in *Sirringhaus* is irrelevant to display pixels (3) as set forth in Claim 1 of the prcsent application. Specifically, *Sirringhaus* does not tcach that the microcontact printing method can be used to form any layer between the display pixcls.

Moreovcr, bccause the disclosure of *Kuwabara* relates to a light-emitting apparatus (thc OLED ficld), and the disclosure of *Sirringhaus* relates to all-polymer TFT devices, it is not reasonable to combine *Sirringhaus* with *Kuwabara*. As such, the combination of *Kuwabara* and *Sirringhaus* is meaningless and cannot work to achieve the results as sct forth in Claim 1 of the present application.

In another aspect, FIGs. 7(a)-7(c) of *Sirringhaus* show the fabrication of TFTs with small channel length and small overlap capacitance. In *Sirringhaus*, the source-drain electrodes (2), (3), interconnect lines between the source-drain electrodes (2), (3), and the contact pads (not shown) are deposited by ink-jet printing a solution of the conducting polymer (Col. 5, lines 45-50); that is, the ink droplets (13) form conducting polymer. By contrast, the drops as set forth in Claim 1 of the present application are of electroluminescent material. Therefore, the ink droplets (13) in *Sirringhaus* are not equivalent to the drops of the present application.

In addition, Examiner states that microcontact printing in *Sirringhaus* is able to print thinner layers than inkjet droplets, and this is the motivation to combine *Kuwabara* and *Sirringhaus*. Applicants respectfully traverse such assertion. The thin polyimide layer (10) in FIG. 7(a) in *Sirringhaus* is not formed by the microcontact printing method. As discussed above, the microcontact printing method is not used to form the thin polyimide layer (10). Instead, the mircocontact printing method is used to form the pre-patterned substrate by patterning the SAM. Therefore, the thin polyimide layer (10) as shown in FIG. 7(a) of *Sirringhaus* is not equivalent to the microcontact printed hydrophobic layer (11) of the present application.

Regarding Claim 6, Examiner states that *Kuwabara* discloses in FIG. 1B that the first bank (21) exposes a part of an insulating film (28) to the organic compound layer (24). Applicants respectfully traverse this assertion. In FIG. 1B of *Kuwabara*, the organic compound layer (24) is located between a first electrode (23) and second electrode (25). The insulating film (28) does not contact with the organic compound layer (24) (see FIG. 1B). By contrast, the present application has the microcontact printed hydrophobic layer (11) (corresponding to the first bank (21) in *Kuwawbara*) exposes a part (6A) of the protection layer (6) (corresponding to the insulating film (28) in *Kuwawbara*) to the electroluminescent material (12) (corresponding to the organic compound layer (24) in *Kuwawbara*). That is, a part (6A) of the protection layer (6) is in contact with the electroluminescent material (12). Therefore, the additional limitations as set forth in Claim 6 of the present application are not equivalent to the disclosure from *Kuwabara*.

For the reasons stated above, Applicants are of the opinion that Claim 1 is patentable over the cited references. Removal of the obviousness rejections against Claim 1 is respectfully requested. Claims 2-6 depend directly or indirectly from Claim 1, and respectively include various further limitations. Since *Sirringhaus* fails to compensate for the above-stated deficiencies with respect to *Kuwabara*, Claims 2-6 are also patentable for at least the reasons stated above with respect to Claim 1.

The reason that Claims 7-8 is patentable is of the same rational as described above with respect to Claim 1, and such is not repeated here.

Claims 9-14 depend directly or indirectly from Claim 8, and respectively include further limitations. Since *Sirringhaus* fails to compensate for the above-stated deficiencies with respect to *Kuwabara*, Claims 9-14 are also patentable for at least the reasons stated above with respect to Claim 8.

Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over *Kuwabara* in view of *Sirringhaus* and further in view of *Cox* (US Patent No. 6,166,439, hereinafter referred to as "*Cox*") and *Chilkoti et al* (US Patent Pub. No. 2003/0059537, hereinafter referred to as "*Chilkoti*").

Claim 15 is indirectly dependent on Claim 8, and includes further limitations. Since *Sirringhaus*, *Cox* and *Chilkoti* all fail to compensate for the above-discussed deficiencies with respect to *Kuwabara*, Claim 15 is also patentable for at least the reasons stated above with respect to Claim 8.

CONCLUSION

In light of the above remarks, Applicants respectfully submit that all pending claims as currently presented are in condition of allowance and hereby respectfully request reconsideration.

Respectfully submitted,

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